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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,513	04/21/2008	Susan L. Lindquist	17481-002US1	1131

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FISH & RICHARDSON P.C. (NY)
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
MAHATAN, CHANNING S	
ART UNIT	PAPER NUMBER
1636	

NOTIFICATION DATE	DELIVERY MODE
04/04/2012	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PATDOCTC@fr.com

Advisory Action Before the Filing of an Appeal Brief	**Application No.** *10/599,513*	**Applicant(s)** LINDQUIST ET AL.
	Examiner CHANNING S. MAHATAN	**Art Unit** 1636

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 24 February 2012 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance;

(2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires *6* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☐ For purposes of appeal, the proposed amendment(s): (a) ☐ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.

12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

13. ☐ Other: _____.

STATUS OF CLAIMS

14. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: .
Claim(s) objected to: .
Claim(s) rejected: 16.
Claim(s) withdrawn from consideration: 17,18 and 21.

/Jennifer Dunston/
Primary Examiner, Art Unit 1636

Continuation of 11. does NOT place the application in condition for allowance because:

The rejection of claim 16 on the grounds of nonstatutory obviousness-type double patenting as being unpatentable over claim 1 of U.S. Patent No. 7,452,670 (herein "US PAT '670") in view of Duchen et al. (Roles of Mitochondria in Health and Disease. Diabetes. Vol. 53, Supplement 1, February 2004, pages S96-S102 (herein "Duchen") is maintained for reasons of record.

In the 'Response', filed February 24, 2012, Applicant argues that the combination of US Patent No. 7,452,670 in view of Duchen does not render claim 16 unpatentable. Applicant submits: 1) instant claim 16 is "not a mere obvious variation of claim 1" of US PAT '670, wherein claim 1 of US PAT '670 "does not describe using ruthenium red as a means to suppress alpha synuclein-mediated toxicity"; 2) Duchen does not add to what is lacking in claim 1 of US PAT '670, wherein Duchen "contains no disclosure related to alpha synuclein or its ability to induce cellular toxicity"; and 3) "nothing in Duchen would have led the person of ordinary skill in the art to reasonably expect (i) that mitochondrial calcium would be relevant to Parkinson's disease, and/or (ii) that ruthenium red would be effective at suppressing alpha synuclein-mediated toxicity or treating Parkinson's disease". However, Applicant's arguments are found unpersausive for the reasons discussed below.

Claim 1 of the instant application similarly recites the method found in claim 16 of US PAT '670, wherein both claims are directed to a method of identifying a candidate agent/compound that diminishes/reduces cellular toxicity associated with α-synuclein polypeptide, found in Parkinson's disease, by determining whether the candidate agent/compound reduces/inhibits α-synuclein mediated toxicity. However, US PAT '670 fails to teach "contacting the cell with a candidate agent...mitochondrial Ca++ porter" (instant claim 16).

Duchen resolves the deficiency of US PAT '670, by investigating the role damaged mitochondria plays in the development of diseases, wherein "mitochondrial dysfunction has been implicated in all the major neurodegenerative diseases - Parkinson's, Alzheimer's, motor neuron disease" (page S97, left column, lines 8-32). Duchen indicates that the regulation/control of mitochondrial function occurs through cellular calcium signaling, wherein calcium is carried into the mitochondrion through an electrogenic uniporter down an electrochemical potential gradient whenever the concentration of extramitochondrial calcium rises (page S97, right column, lines 9-24). The electrogenic uniporter is indicated as being blocked by ruthenium red (e.g., mitochondria Ca++ porter) and, thereby its regulation is implicated in mitochondria function (Id.).

Although the conflicting claims are not identical, wherein US PAT '670 does not specifically recite the combination of the disclosed method with a mitochondrial Ca++ porter (claim16), they are not patentably distinct from each other.

Thus, one of ordinary skill in the art would have had a reasonable expectation of success in applying the mitochondria Ca++ porter (e.g., ruthenium red) to the method of determining a candidate agent that enhances viability of a cell (i.e. inhibit alpha synuclein) of US PAT '670, based upon the implication dysfunctional mitochondria play in neurodegenerative diseases (i.e. Parkinson's) and the regulating effect (e.g., blocking) ruthenium red has on calcium uptake by the electrogenic uniporter found in mitochondria as described in Duchen. Furthermore, both US PAT '670 and Duchen are similarly directed to the study of neurodegenerative diseases.

The rejection of claim 16 under 35 U.S.C. 103(a) as being obvious over U.S. Patent Number 7,452,670 (herein "US PAT '670") in view of Duchen et al. (Roles of Mitochondria in Health and Disease. Diabetes. Vol. 53, Supplement 1, February 2004, pages S96-S102; herein "Duchen") is maintained for reasons of record.

In the 'Response' (page 4), filed February 24, 2012, Applicant reiterates arguments provided in the double patenting rejection. Applicant submits US PAT "lacks any disclosure that would have led the person of ordinary skill in the art to expect that ruthenium red can be used as a means to suppress alpha synuclein-mediated toxicity. However, Applicant's arguments are found unpersausive for the reasons discussed in the above '103 rejection', wherein Duchen resolves the deficiency of US PAT '670. In view of the teaching of Duchen. One of ordinary skill in the art the time the invention was made would have applied ruthenium red (e.g., mitochondrial Ca++ porter) to the method of identifying an agent for diminishing cellular toxicity associated with an α-synuclein polypeptide based on the teaching α-synuclein polypeptide has in Parkinson's disease (e.g., claim 16 of US PAT '670).

Accordingly, US PAT '670 in view of Duchen renders the instant claim unpatentable.